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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,609	09/20/1999	HASSAN HAGIRAHIM	HAGIRAHIM5-4	3602

7590

08/24/2004

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RESTON, VA 20195

EXAMINER

ODLAND, DAVID E

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 08/24/2004

25

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/400,609

Applicant(s)

HAGIRAHIM ET AL.

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,15,17,24,25 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,15,17,24,25 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the Amendment filed 07/27/2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1,3,4,15,17,24,25 and 30-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1,24,25 and 30-32 recite that the IP packets are transported over the IP backbone "...without appending a header..." The specification does not adequately describe how IP packets can be transported over the IP backplane without appending a header, in such a manner that would allow a skilled artisan to make use the claimed invention. Conversely, the specification seems to describe the opposite. Namely, the specification describes at numerous locations that the ATM cells are encapsulated into the IP headers and IP headers are used for the transportation of the packets (see page 3 line 16, page 6 line 17, page 7 line 14 and page 11 line 7).

Claims 3,4,15 and 17 are rejected because they depend on rejected claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 4, 15, 17, 24-25 and 30-32, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Keshav et al (USP 5,623,605, hereafter Keshav) in view of the Draft ITU-T Recommendation H.323 (hereafter H.323).

- Referring to claim 1, Keshav discloses a system for establishing a dedicated channel to transport IP encapsulated ATM cells from one ATM network associated with a source gateway to another ATM network associated with a destination gateway over an IP backbone network (Fig. 4, col. 2, lns. 59-col. 3, lns. 23, col. 5, lns. 55-65, col. 6, lns. 40-58), the system comprising: a source gateway interconnected to the IP backbone network (Fig. 4, '100'), said source gateway operable to transmit an IP signaling message requesting an IP address of a proper destination gateway to a controller (connection manager) upon receipt of an ATM signaling message from an ATM end point (Fig. 4, col. 6, lns. 49-58, col. 7, lns. 24-41); and uses this information to setup a connection to send ATM cells across the IP network. Keshav does not expressly disclose receiving the IP address from the controller confirming the address of the proper destination gateway from the controller; transmit an address registration message to the controller to register the source gateway; exchange set-up messages with the proper destination gateway to transport IP encapsulated ATM cells associated with a call; and transmit an open logical channel request message to the controller to request the establishment of a dedicated channel between the source

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gateway and the destination gateway to transport IP encapsulated ATM cells. The H.323 standard discloses endpoints that can be gateways, and a gatekeeper (controller) for establishing connections. H.323 is designed to set up connections that require a certain quality of service to be established across networks that do not offer quality of service guarantees. H.323 can be applied to ATM (quality of service network) and IP (no quality of service guarantees, page ii, Fig. 1, pg. 2, pg. 5, 'Endpoint,' 'Gatekeeper,' 'Gateway'). H.323 discloses receiving the IP address from the controller confirming the address of the proper destination gateway from the controller (transmit a location request message, pg. 32, 7.2.3); transmit an address registration message to the controller to register the source gateway (pg. 31-32, 7.2.2); exchange set-up messages with the proper destination gateway to transport (IP encapsulated ATM cells) associated with a call (pg. 38, 8.1.2); and transmit an open logical channel request message to the controller to request the establishment of a dedicated channel between the source gateway and the destination gateway (to transport IP encapsulated ATM cells. pg. 34, pg. 50, all call signaling can be done exclusively through the gatekeeper). The system of Keshav could be modified to use the call setup and signaling of the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323. One of ordinary skill in the art would have been motivated to do this since using H.323 allows quality of service data to be transported across networks without quality of service guarantees. This would also allow the system to be compatible with other networks using the H.323 recommendation.

- Referring to claim 3, Keshav discloses the system of claim 1 wherein the ATM signaling message is an ATM UNI signaling message (col. 6, lns. 5-11).

- Referring to claim 4, Keshav discloses the system of claim 1 wherein the IP signaling message follows the H.323 protocol (see claim 1).

- Referring to claim 15, Keshav discloses the method of claim 30 wherein the step of receiving the IP address from the controller is performed via a H.323 protocol message (see claim 30).

- Referring to claim 17, Keshav discloses the method of claim 30 wherein the signaling set-up messages use a Q.2931 signaling format (H.323 uses Q.2931 signaling messages, see page 22, first paragraph of H.323).

- Referring to claims 24 and 31, Keshav discloses a system for establishing a dedicated channel to transport IP encapsulated ATM cells from one ATM network associated with a source gateway to another ATM network associated with a destination gateway over an IP backbone network (Fig. 4, col. 2, lns. 59-col. 3, lns. 23) comprising: a destination gateway interconnected to the IP backbone network (Fig. 4), and transmits IP encapsulated ATM messages. Keshav does not expressly disclose said destination gateway operable transmit an automatic retransmission request to a controller to register the destination gateway and to determine whether the destination gateway may receive IP encapsulated ATM cells associated with a call from a source gateway; receive a confirmation message from the controller confirming the destination gateway may receive the ATM cells; exchange set-up messages with a source gateway to transport IP encapsulated ATM cells over the IP backbone network; transmit an open logical channel request message to the controller to open a dedicated channel between the destination gateway and the source gateway; transmit an alert message to the source gateway to inform the source gateway that an ATM endpoint has been alerted about the call; and transmit a call proceeding message to

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the source gateway. H.323 discloses said destination gateway operable transmit an automatic retransmission request to a controller to register the destination gateway (pg. 31,32, 7.2.2, pg. 38, 8.1.2) and to determine whether the destination gateway may receive a call (IP encapsulated ATM cells) associated with a call from a source gateway; (pg. 38) receive a confirmation message from the controller confirming the destination gateway may receive the call (ATM cells); exchange set-up messages with a source gateway to transport the call (IP encapsulated ATM cells over the IP backbone network, pg. 38); transmit an open logical channel request message to the controller to open a dedicated channel between the destination gateway and the source gateway (pg. 34, pg. 50, all signaling can be done through the gatekeeper); transmit an alert message to the source gateway to inform the source gateway that an ATM endpoint has been alerted about the call; and transmit a call proceeding message to the source gateway (pg. 38). The system of Keshav could be modified to use the call setup and signaling of the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323. One of ordinary skill in the art would have been motivated to do this since using H.323 allows quality of service data to be transported across networks without quality of service guarantees. This would also allow the system to be compatible with other networks using the H.323 recommendation.

- Referring to claims 25 and 32, Keshav discloses a system for establishing a dedicated channel to transport IP encapsulated ATM cells from one ATM network associated with a source gateway to another ATM network associated with a destination gateway over an IP backbone network (Fig. 4), but does not expressly disclose a controller interconnected to the IP backbone network, said controller operable to transmit an IP address of a proper destination gateway to a

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source gateway using an IP signaling message; receive an address registration message from the source gateway to register the source gateway and an automatic retransmission message from the destination gateway to register the destination gateway; and transmit acknowledgements to the source and destination gateways to acknowledge the opening of a logical channel between the source and destination gateways in response to receiving one or more open logical channel request messages. H.323 discloses a gatekeeper (controller) interconnected to the IP backbone network, said gatekeeper (controller) operable to transmit an IP address of a proper destination gateway to a source gateway using an IP signaling message (transmit a location request/confirm message, pg. 32, 7.2.3); receive an address registration message from the source gateway to register the source gateway (pg. 31-32, 7.2.2) and an automatic retransmission message from the destination gateway to register the destination gateway (pg. 38); and transmit acknowledgements to the source and destination gateways to acknowledge the opening of a logical channel between the source and destination gateways in response to receiving one or more open logical channel request messages (pg. 34, pg. 50, all of the signaling can be done through the gatekeeper). The system of Keshav could be modified to use the call setup and signaling of the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323. One of ordinary skill in the art would have been motivated to do this since using H.323 allows quality of service data to be transported across networks without quality of service guarantees. This would also allow the system to be compatible with other networks using the H.323 recommendation.

- Referring to claim 30, Keshav discloses a method for establishing a dedicated channel to transport IP encapsulated ATM cells from one ATM network associated with a source

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gateway to another ATM network associated with a destination gateway over an IP backbone network (Fig. 4, col. 2, lns. 59-col. 3, lns. 30) comprising: transmitting an IP signaling message requesting an IP address of a proper destination gateway to a connection manager (controller) upon receipt of an ATM signaling message from an ATM end point (col. 6, lns. 49-59); receiving the IP address of the proper destination gateway from the connection manager (controller); and communicating across the IP network with IP encapsulated ATM cells (Col. 6, lns. 40-50). Keshav does not expressly disclose transmitting an address registration message to the controller to register a source gateway; exchanging set-up messages between the source gateway and the proper destination gateway to transport IP encapsulated ATM cells associated with a call; and transmitting an open logical channel request message to the controller to request the establishment of a dedicated channel between the source gateway and the destination gateway to transport encapsulated ATM cells. H.323 discloses transmitting an address registration message to the controller to register a source gateway (pg. 31-32); exchanging set-up messages between the source gateway and the proper destination gateway to transport (IP encapsulated ATM cells associated with) a call (pg. 38); and transmitting an open logical channel request message to the controller to request the establishment of a dedicated channel between the source gateway and the destination gateway to transport the call (encapsulated ATM cells, pg. 38 and 50). The system of Keshav could be modified to use the call setup and signaling of the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323. One of ordinary skill in the art would have been motivated to do this since using H.323 allows quality of service

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data to be transported across networks without quality of service guarantees. This would also allow the system to be compatible with other networks using the H.323 recommendation.

Response to Arguments

6. Applicant's arguments filed 07/27/2004 have been fully considered but they are not persuasive.

On page 9 second paragraph the Applicant argues that Keshav differs from the present invention because Keshav relies on the transport of AAL frames and not ATM cells. The Examiner respectfully disagrees. Although Keshav discusses AAL5 frames, these frames are part of a higher layer of the ATM protocol stack and before these frames are transported they are put into *cell* format (see column 5 lines 12 and 19-21 and column 13 line 21). Therefore, indeed Keshav is concerned with ATM cells. Furthermore, Keshav's teaches of AAL5 frames is consistent with the Applicant's own disclosure. Namely, on page 13 line 14, the Applicant's specification describes using AAL5 data in the ATM cells.

On page 9 last paragraph through page 10 second paragraph, the Applicant argues that Keshav does not disclose or suggest the claimed invention because the invention can transport the IP encapsulated ATM cells without appending a header. As pointed out in the 35 USC 112 first and second paragraph rejections discussed above, the specification does not adequately describe how IP packets can be transported over the IP backplane without appending a header. Conversely, the specification seems to describe the exact opposite. Namely, the specification describes at numerous locations that the ATM cells are encapsulated into the IP headers and IP headers are used for the transportation of the packets (see page 3 line 16, page 6 line 17, page 7

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line 14 and page 11 line 7 of the Applicant specification). Furthermore, it is unclear how the IP packets can be transported over the IP backbone without using appended headers, since if the packets do not include headers than the network entities (i.e. routers, switched, end stations, etc.) will not know who the packets are destined for and thus the packets will be lost and/or errors will occur.

On page 10 paragraph 5 regarding the rejection of claim 17, the Applicant argues that there is no disclosure of suggestion in the H.323 document for using a Q.2931 signaling format. The Examiner respectfully disagrees. The H.323 document clearly states on page 22 first paragraph, that Q.2931 signaling is used.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland whose telephone number is 703-305-3231. The examiner can normally be reached on Monday - Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

deo

August 21, 2004



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